

Work Order ID 76203-2

**\*76203\***

Page 1

November-07-11 2:36:22 PM

Item ID: D3179-041

**Accept**

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

**Item Name:** Fwd Litter Tie Down

Stop \*NS2\*

Start Date: 07/11/2011 Start Qty: 4.00

**\*4\***

Cust Item ID:

**Required Date:** 21/11/2011      **Req'd Qty:** 4.00

\*4\*

**Customer:**

**Reference:**

Approvals: Process Plan: M.L.J

Date: 11/11/08

**Tooling:**

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date: \_\_\_\_\_

Stop \*NR2\*

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 76203

**\*76203\***

Page 2

November-07-11 2:36:22 PM

Item ID: D3179-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Fwd Litter Tie Down  
 Start Date: 07/11/2011 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 21/11/2011 Req'd Qty: 4.00 **\*4\*** Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
<b>*130*</b>									
QC	Memo	0.00				4	0		
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*140*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
150	QC3- Inspect Part Finish	0.00							
<b>*150*</b>									
QC	Memo	0.00				H	BR	11-12-21	
Quality Control									

4x8m-11/12/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 76203

\*76203\*

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November-07-11 2:36:22 PM

Item ID: D3179-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Fwd Litter Tie Down  
 Start Date: 07/11/2011 Start Qty: 4.00 \*4\* Cust Item ID:  
 Required Date: 21/11/2011 Req'd Qty: 4.00 \*4\* Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
*160*									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 8:15	OVEN TEMPERATURE:							
	FINISH TIME: 8:45								
	320°F								
170	QC3- Inspect Part Finish	0.00							
*170*									
QC	Memo	0.00							
Quality Control									
180	Small Fab	0.00							
*180*									
Small Fab	Memo	0.00							
Small Fab	Assemble as per Dwg D3179								

4X M-11/12/21

H BL 11-12-21.

12/02/21 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 76203

\*76203\*



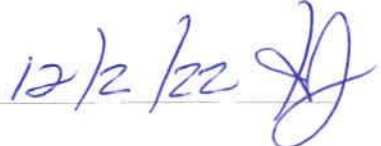
Page 4

November-07-11 2:36:22 PM

Item ID: D3179-041 Accept \*N9000040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Fwd Litter Tie Down  
 Start Date: 07/11/2011 Start Qty: 4.00 \*4\* Cust Item ID:  
 Required Date: 21/11/2011 Req'd Qty: 4.00 \*4\* Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00					12	02	21 ①
200 *200* Packaging Packaging	Identify as per dwg & Stock Location: <u>225</u>  Memo	0.00  0.00							
210 *210* QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							

12-02-22  
①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

November-07-11 2:36:27 PM

Page 1

Work Order ID: 76203

\*76203\*

Parent Item: D3179-041

\*D3179-041\*

Parent Item Name: Fwd Litter Tie Down

Start Date: 07/11/2011

Required Date: 21/11/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP A1 03.01.09 Added Acid etch end alodine RF  
IPP Rev:B Added Powder Coat 07-07-04 JLM  
IPP Rev:C 08-12-10 add part list DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

NAS1149D0332J

Purchased

No

100

Each

2,366.000

3

12

\*NAS1149D0332.I\*

Washer

\*\*

Location

Loc Qty

Loc Code

ST298

2366

105793

12

110985

4

117087

344

118078

6

118384

1000

119042

1000

D2372

Manufactured

No

180

Each

6.0000

2

8

\*D2372\*

Quick Release

\*\*

Location

Loc Qty

Loc Code

ST012

6

60716

6

D2444

Manufactured

No

180

Each

10.0000

1

4

\*D2444\*

Pip Pin Assembly

\*\*

Location

Loc Qty

Loc Code

ST

10

72147

10

D2372-1

B 79889

x2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

November-07-11 2:36:27 PM

Work Order ID: 76203

\*76203\*

Parent Item: D3179-041

\*D3179-041\*

Parent Item Name: Fwd Litter Tie Down

Start Date: 07/11/2011

Required Date: 21/11/2011

Start Qty: 4.00

Required Qty: 4.00

D6201 Manufactured No 180 f 14.9400 1.0125 4.263158

\*D6201\*

"T" Extrusion

\*\*

Location	Loc Qty	Loc Code
MAT004	14.94	
57767	1.34	
71208	13.6	

MS21042L3

Purchased No

180 Each 9,436.000 1 4

\*MS21042L3\*

Nut

\*\*

Location	Loc Qty	Loc Code
ST300	456	
117441	16	
117885	42	
118451	33	
118927	365	
ST516	6000	
119017	6000	
ST518	2980	
119075	2980	

MS27039-1-13

Purchased No

180 Each 32.0000 1 4

\*MS27039-1-13\*

Screw

\*\*

Location	Loc Qty	Loc Code
ST291	32	
110844	32	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	76203
<b>Description:</b> Fwd Litter Tie Down Bracket		<b>Part Number:</b>	D3179-1
<b>Inspection Dwg:</b> D3179	<b>Rev:</b> C	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+/-0.030	1.006	✓		Dial caliper	ECOS
Ø0.242	+0.005/-0.001	.242	✓			
R0.40	+/-0.030	.400	✓			
0.375	+/-0.010	.369	✓			
Ø0.191	+0.005/-0.001	.191	✓			
1.00	+/-0.030	1.006	✓			
1.70	+/-0.030	1.689	✓			
4.00	+/-0.030	3.990	✓			
1.50	+/-0.030	1.504	✓			
0.750	+/-0.010	.752	✓			
1.50	+/-0.030	1.504	✓			
10.500	+/-0.010	10.500	✓			
4.250	+/-0.010	4.250	✓			
0.750	+/-0.010	.752	✓			
1.000	+/-0.010	1.000	✓			
12.00	+/-0.030	12.005	✓			
1.00	+/-0.030	1.005	✓			
8.00	+/-0.030	8.000	✓			
Ø0.191	+0.005/-0.001	.191	✓			
R0.37	+/-0.030	.375	✓			
0.97	+/-0.030	.966	✓			
1.86	+/-0.030	1.857	✓			
1.750	+/-0.010					Not on drawing
0.375	+/-0.010	.374	✓			
2.875	+/-0.010	2.877	✓			
0.500	+/-0.010	.502	✓			
1.250	+/-0.010	1.248	✓			
1.625	+/-0.010	1.625	✓			
3.31	+/-0.030	3.311	✓			

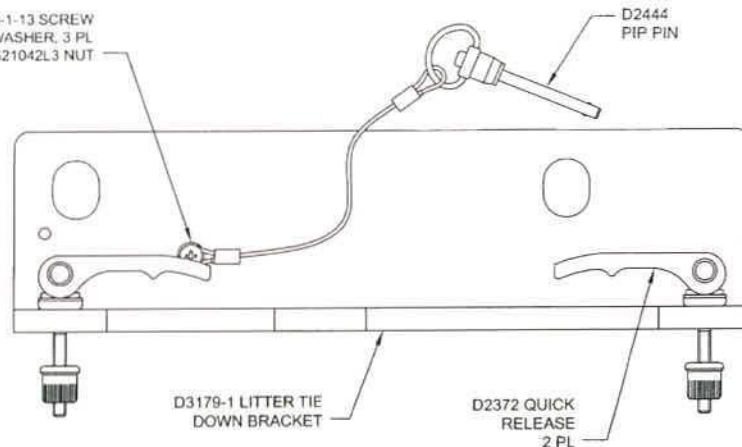
<b>Measured by:</b> BCK/SA	<b>Audited by:</b> BA	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 11/12/19	<b>Date:</b> 11/12/19	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	09.04.05	New Issue	KJ/DD	AA

Item	Qty	Part Number	Description
1	X	D3179-041	FWD LITTER TIE DOWN
2	2	D2372	QUICK RELEASE
3	1	D2444	PIP PIN
4	1	D3179-1	LITTER TIE DOWN BRACKET
5	1	MS21042L3	NUT
6	1	MS27039-1-13	SCREW
7	3	NAS1149D0332J	WASHER (OR AN960JD10L)

MS27039-1-13 SCREW  
NAS1149D0332J WASHER, 3 PL  
MS21042L3 NUT

D2444  
PIP PIN



**D3179-041 FWD LITTER TIE DOWN BRACKET**

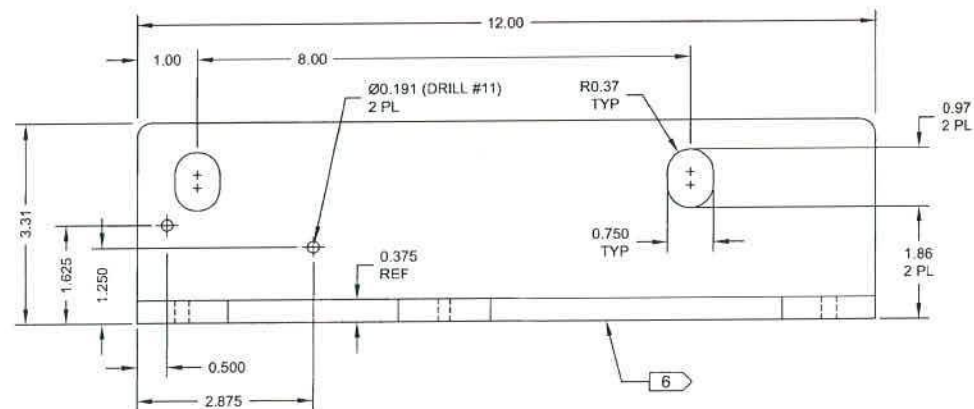
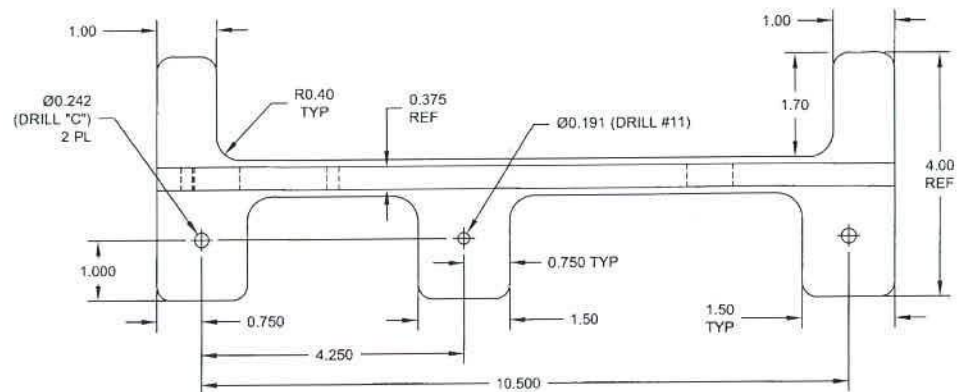
**NOTES:**

1) D3179-041 WEIGHT: 2.79 lbs

SHOP COPY  
RETURN TO  
ENGINEER  
UNCONTROLLED  
SUBJECT TO  
WITH A  
WO  
NO. 76203  
211-11-08

RELEASED  
08/11/21

C	ADD D3179-041 & PART LIST (ZN B6-1, D2-1); D3179-1 WAS D3179 (ZN A5-2); REMOVE ENGRAVE P/N	RF	08.11.07
B	REFORMAT DRAWING; FINISH WAS ANODIZE	DC	07.06.06
A	NEW ISSUE	RF	02.12.09
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3179	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR		LITTER TIE DOWN BRACKET	NTS
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**D3179-1 LITTER TIE DOWN BRACKET**

**NOTES:**

- 1) MATERIAL: MAKE FROM D6201-012 EXTRUSION (6061-T6/T6511 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N D3179-1 USING FINE POINT PERMANENT INK MARKER ON THE BOTTOM FACE
- 7) WEIGHT: 2.3 lbs

DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PA	DRAWING NO.	REV. C
MFG. APPR.		D3179	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		LITTER TIE DOWN BRACKET	NTS
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